



## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2022-0691; Project Identifier AD-2022-00601-E; Amendment 39-22098; AD 2022-13-12]**

**RIN 2120-AA64**

#### **Airworthiness Directives; General Electric Company Turbofan Engines**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule; request for comments.

**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for all General Electric Company (GE) GE Passport 20-17BB1A, GE Passport 20-18BB1A, and GE Passport 20-19BB1A model turbofan engines. This AD was prompted by fuel leakage from the fuel nozzle to fuel manifold coupling nut connections. This AD requires a visual inspection of the core compartment, a re-torque of the core compartment coupling nuts, a ground power assurance check, and a borescope inspection. Depending on the results of the inspections, this AD requires operators to perform applicable maintenance in accordance with their FAA-approved instructions for continued airworthiness. The FAA is issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The FAA must receive comments on this AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this final rule, contact General Electric Company, 1 Neumann Way, Cincinnati, OH 45215; phone: (513) 552-5387; email: [aviation.fleetsupport@ge.com](mailto:aviation.fleetsupport@ge.com); website: [www.ge.com](http://www.ge.com). You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (817) 222-5110. It is also available at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0691.

### **Examining the AD Docket**

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0691; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The street address for the Docket Operations is listed above.

**FOR FURTHER INFORMATION CONTACT:** Scott Stevenson, Aviation Safety Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: (781) 238-7132; email: [Scott.M.Stevenson@faa.gov](mailto:Scott.M.Stevenson@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Background**

On March 31, 2022, and April 4, 2022, two Bombardier Inc. BD-700-2A12 airplanes (marketed as Global 7500 airplanes), powered by GE Passport P20-19BB1A and GE Passport P20-18BB1A model turbofan engines, respectively, experienced an engine fire during flight. The engine fire on the GE Passport P20-19BB1A resulted in a commanded in-flight shutdown (IFSD) and air turnback (ATB). The engine fire on the GE Passport P20-18BB1A resulted in an ATB. A subsequent investigation by the

manufacturer found evidence of fuel leakage on the lower outboard core panel, aft end of the bifi plate, ignition lead, and fuel manifold B-nut connections. The investigation also found that fuel nozzle to fuel manifold B-nut connections were under-torqued on both event engines and the fuel leak at the fuel nozzle B-nut connections likely caused the engine fires. As a result, the manufacturer published GE Service Bulletin (SB) PASSPORT20-A-72-00-0141-00A-930A-D, Issue No 000, dated April 12, 2022, and GE SB PASSPORT20-A-72-00-0142-00A-930A-D, Issue No 001, dated May 11, 2022. The service information specifies procedures for the performance of a visual inspection of the fuel nozzle zone in the core compartment for indications of fuel leakage, undetected fire, or heat distress, re-torque of the coupling nuts in the core compartment, a ground power assurance check, and a borescope inspection. This condition, if not addressed, could result in engine fire, failure of the engine, in-flight shutdown, and loss of the airplane. The FAA is issuing this AD to address the unsafe condition on these products.

#### **FAA's Determination**

The FAA is issuing this AD because the agency has determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

#### **Related Service Information under 1 CFR Part 51**

The FAA reviewed GE SB PASSPORT20-A-72-00-0142-00A-930A-D, Issue No 001, dated May 11, 2022 (GE SB PASSPORT20-A-72-00-0142). GE SB PASSPORT20-A-72-00-0142 specifies procedures for the performance of a visual inspection, a re-torque of the coupling nuts in the core compartment, a ground power assurance check, and a borescope inspection. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in ADDRESSES.

#### **Other Related Service Information**

The FAA reviewed GE SB PASSPORT20-A-72-00-0141-00A-930A-D, Issue No 000, dated April 12, 2022 (GE SB PASSPORT20-A-72-00-0141). GE SB PASSPORT20-A-72-00-0141 specifies procedures for the performance of a borescope inspection of the core compartment for indications of fuel leak or fire.

## **AD Requirements**

This AD requires a visual inspection of the core compartment, re-torque of the core compartment coupling nuts, a ground power assurance check, and a borescope inspection. Depending on the results of the inspections, this AD requires operators to perform applicable maintenance in accordance with their FAA-approved instructions for continued airworthiness.

## **Differences Between the AD and the Service Information**

GE SB PASSPORT20-A-72-00-0142-00A-930A-D specifies procedures for reporting information to the manufacturer. This AD does not require operators to report information to the manufacturer.

GE SB PASSPORT20-A-72-00-0142-00A-930A-D specifies procedures for contacting a GE field service engineer or 24/7 Business Aviation Support. This AD does not require operators to contact a GE field service engineer or 24/7 Business Aviation Support. Instead, this AD requires following an FAA-approved method to return the engine to service.

## **Interim Action**

The FAA considers this AD to be an interim action. This unsafe condition is still under investigation by the manufacturer and, depending on the results of that investigation, the FAA may consider further rulemaking action.

## **Justification for Immediate Adoption and Determination of the Effective Date**

Section 553(b)(3)(B) of the Administrative Procedure Act (APA) (5 U.S.C. 551 *et seq.*) authorizes agencies to dispense with notice and comment procedures for rules when the agency, for “good cause,” finds that those procedures are “impracticable, unnecessary, or contrary to the public interest.” Under this section, an agency, upon finding good cause, may issue a final rule without providing notice and seeking comment prior to issuance. Further, section 553(d) of the APA authorizes agencies to make rules effective in less than thirty days, upon a finding of good cause.

An unsafe condition exists that requires the immediate adoption of this AD without providing an opportunity for public comments prior to adoption. The FAA has found that the risk to the flying public justifies foregoing notice and comment prior to

adoption of this rule. The FAA considers fuel leakage and engine fire to be an urgent safety issue. The visual inspection of the core compartment is necessary to prevent engine fire, IFSD, damage to the airplane, failure of the engine, and loss of control of the airplane. All GE Passport 20-17BB1A, Passport 20-18BB1A, and Passport 20-19BB1A model turbofan engines are equipped with fuel nozzle to fuel manifold coupling nut connections which were determined by the manufacturer to have the potential for under-torqueing, following two incidents of engine fire on airplanes wherein a fuel leak at the fuel nozzle coupling nut connection was likely the cause of the fire. Affected engines must undergo a visual inspection before exceeding 30, 50, or 75 flight cycles (FCs) after the effective date of this AD, depending on the engine's cycles since new (CSN). Re-torque of the core compartment coupling nuts is required within 30 or 100 FCs after the effective date of the AD, depending on the engine serial number. Current fleet utilization data estimates the flight cycles will be accumulated between 30 and 90 days after the effective date of this AD. For affected engines with indications of fuel leakage, undetected fire, or heat distress following a visual inspection of the core compartment, this AD requires operators to perform applicable maintenance in accordance with their FAA-approved instructions for continued airworthiness. Accordingly, notice and opportunity for prior public comment are impracticable and contrary to the public interest pursuant to 5 U.S.C. 553(b)(3)(B).

In addition, the FAA finds that good cause exists pursuant to 5 U.S.C. 553(d) for making this amendment effective in less than 30 days, for the same reasons the FAA found good cause to forego notice and comment.

### **Comments Invited**

The FAA invites you to send any written data, views, or arguments about this final rule. Send your comments to an address listed under ADDRESSES. Include "Docket No. FAA-2022-0691 and Project Identifier AD-2022-00601-E" at the beginning of your comments. The most helpful comments reference a specific portion of the final rule, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this final rule because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this final rule.

### **Confidential Business Information**

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this AD contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this AD, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as "PROPIN." The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this AD. Submissions containing CBI should be sent to Scott Stevenson, Aviation Safety Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

### **Regulatory Flexibility Act**

The requirements of the Regulatory Flexibility Act (RFA) do not apply when an agency finds good cause pursuant to 5 U.S.C. 553 to adopt a rule without prior notice and comment. Because the FAA has determined that it has good cause to adopt this rule without prior notice and comment, RFA analysis is not required.

### **Costs of Compliance**

The FAA estimates that this AD affects 42 engines installed on airplanes of U.S. registry.

The FAA estimates the following costs to comply with this AD:

### Estimated costs

Action	Labor Cost	Parts Cost	Cost per product	Cost on U.S. operators
Visual inspection of core compartment	2 work-hours x \$85 per hour = \$170	\$0	\$170	\$7,140
Re-torque core compartment coupling nuts	31 work-hours x \$85 per hour = \$2,635	\$0	\$2,635	\$110,670
Ground power assurance check and borescope inspection	4 work-hours x \$85 per hour = \$340.	\$0	\$340	\$14,280

### Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866, and
- (2) Will not affect intrastate aviation in Alaska.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **The Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

**2022-13-12 General Electric Company:** Amendment 39-22098; Docket No. FAA-2022-0691; Project Identifier AD-2022-00601-E.

#### **(a) Effective Date**

This airworthiness directive (AD) is effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

#### **(c) Applicability**

This AD applies to General Electric Company (GE) GE Passport 20-17BB1A, GE Passport 20-18BB1A, and GE Passport 20-19BB1A model turbofan engines.

#### **(d) Subject**

Joint Aircraft System Component (JASC) Code 7240, Turbine Engine Combustion Section.

#### **(e) Unsafe Condition**

This AD was prompted by multiple engine fires that have occurred as a result of fuel leakage from the fuel nozzle to fuel manifold coupling nut connections. The FAA is issuing this AD to prevent fuel leakage from the fuel nozzle to fuel manifold coupling nut connections. The unsafe condition, if not addressed, could result in engine fire, failure of the engine, in-flight shutdown, and loss of the airplane.



## **(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

## **(g) Required Actions**

(1) For all affected engines, within the compliance times specified in paragraphs (g)(1)(i) through (iii) of this AD, perform a visual inspection of the core compartment for indications of fuel leakage, undetected fire, and heat distress:

(i) For engines with less than or equal to 150 cycles since new (CSN) as of the effective date of this AD, inspect before exceeding 30 flight cycles (FCs) after the effective date of this AD.

(ii) For engines with 151 to 200 CSN as of the effective date of this AD, inspect before exceeding 50 FCs after the effective date of this AD.

(iii) For engines with greater than 200 CSN as of the effective date of this AD, inspect before exceeding 75 FCs after the effective date of this AD.

Note 1 to paragraph (g)(1): Guidance for accomplishing the actions required by paragraph (g)(1) of this AD can be found in GE Service Bulletin (SB) PASSPORT20-A-72-00-0141-00A-930A-D, Issue No. 000, dated April 12, 2022, or GE SB PASSPORT20-A-72-00-0142-00A-930A-D, Issue No. 001, dated May 11, 2022 (GE SB PASSPORT20-A-72-00-0142-00A-930A-D).

(2) If, during the visual inspection required by paragraph (g)(1) of this AD, there are indications of fuel leakage, undetected fire, or heat distress, before further flight, perform applicable maintenance in accordance with the FAA-approved instructions for continued airworthiness.

(3) For engines with engine serial number (ESN) 904257 or higher, before exceeding 30 FCs after the effective date of the AD, re-torque the core compartment coupling nuts in accordance with Accomplishment Instructions, 6.B., Procedure, paragraphs (8) through (24) of GE SB PASSPORT20-A-72-00-0142-00A-930A-D.

(4) For engines with ESN 904256 or lower, before exceeding 100 FCs after the effective date of the AD, re-torque the core compartment coupling nuts in accordance with Accomplishment Instructions, 6.B., Procedure, paragraphs (8) through (24) of GE SB PASSPORT20-A-72-00-0142-00A-930A-D.

(5) For all affected engines, before further flight after performing the required actions in paragraph (g)(3) or (4), as applicable, perform a ground power assurance check and a borescope inspection of the core compartment in accordance with Accomplishment Instructions, 6.B., Procedure, paragraphs (32) through (38) of GE SB PASSPORT20-A-72-00-0142-00A-930A-D.

**(h) Exception to the Service Information**

Where GE SB PASSPORT20-A-72-00-0142-00A-930A-D specifies contacting “your GE field service engineer or 24/7 Business Aviation Support,” this AD requires the engine to be serviced using FAA-approved maintenance procedures.

**(i) No Reporting Requirements**

The reporting requirements in the Accomplishment Instructions, 6.B., Procedure, paragraphs (11), (14), (18), (20), (23) and (36) of GE SB PASSPORT20-A-72-00-0142-00A-930A-D are not required by this AD.

**(j) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, ECO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (k) of this AD and email to: ANE-AD-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(k) Related Information**

For more information about this AD, contact Scott Stevenson, Aviation Safety Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: (781) 238-7132; email: Scott.M.Stevenson@faa.gov.

**(I) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) GE Service Bulletin PASSPORT20-A-72-00-0142-00A-930A-D, Issue No 001, dated May 11, 2022.

(ii) [Reserved]

(3) For service information identified in this AD, contact General Electric Company, 1 Neumann Way, Cincinnati, OH 45215; phone: (513) 552-3272; email: [aviation.fleetsupport@ge.com](mailto:aviation.fleetsupport@ge.com); website: [www.ge.com](http://www.ge.com).

(4) You may view this service information at FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov), or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on June 14, 2022.

Christina Underwood, Acting Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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